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ABSTRACT

The New College Experimental Teacher Education Program at Hofstra University was developed to provide a field-centered experience for undergraduates interested in pursuing careers in elementary education. The Teacher Innovator Program at Columbia University's Teachers College provided the major theoretical ideas and concrete materials for the program. The direction and structure of the program derived from a belief that a teacher education program should provide experiences whereby trainees a) acquire knowledge of the major content areas that comprise the elementary school curriculum, b) acquire knowledge of curriculum planning and development, d) develop skill in interacting sensitively and flexibly with learners and with peers, e) develop skill in organizing the social structure of the classroom, f) develop skill in analyzing the verbal behavior of teachers and learners, and g) develop greater insights into their own emotional and professicn professional growth and development. The four components which comprise the program are Models of Teaching, Curriculum Content, Human Relations, and Study of Teaching. (Author/HMD)

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The Interpretation and Application of a Program of Teacher Education Utilizing Models.

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Summary

The Interpretation and Application of a Program of Teacher Education Utilizing Models.

The New College Experimental Teacher Education Program was developed to provide a field-centered experience for a group of undergraduates interested in pursuing careers in elementary education. The Teacher Innovator Program at Teachers College, Columbia University provided the major source of theoretical ideas and concrete materials for the program. The specific educational philosophies, personal and professional backgrounds of the program's developers all contributed to the form and substance of the program.

The direction and structure that the program eventually took derived from our belief that a teacher education program should provide experiences whereby trainees:-

1. Acquire knowledge of the major content areas that comprise the elementary school curriculum.
2. Acquire knowledge of the major theories of child development and child behavior.
3. Acquire knowledge of the philosophic foundations of education.
4. Acquire knowledge of curriculum planning and development.
5. Develop skill in interacting sensitively and flexibly with learners and with peers.
6. Develop skill in organizing the social structure of the classroom.
7. Develop skill in analyzing the verbal behavior of teachers and learners.
8. Develop greater insights into their own and others emotional and professional growth and development.

Towards these goals the components of our program were developed. Additionally, because we believe that our society and its educational institutions must be responsive to change and must assume leadership in areas of innovation, we intended that the New College Teacher Education Program would encourage the development in trainees of an inquiring, innovative, independent spirit.

BACKGROUND

During the academic year 1971-1972, a new teacher education program was designed (to be implemented in '72-'73) for a pilot group of 14 students enrolled in Hofstra University's experimental college within the larger university, New College. In order to understand the program and its position in the total New College experience, we will briefly examine the non-traditional structure and curriculum of New College.

A basic premise underlying New College is that "Students learn best when pursuing goals which they perceive as relevant."[1] It is for this reason that students, in conjunction with a faculty advisor, construct individual programs. They may explore any one of four areas of concentration: the Humanities, the Social Sciences, the Natural Sciences or the Liberal Arts which draws upon combinations of the above. There is a distinct lack of emphasis on mandated courses. In fact, there are only three units of an interdisciplinary nature required in the Freshman Year, and one Final Unit taken in the Senior Year which provides for personal assessment of academic growth over the college years. (A unit is defined as a completed set of learning experiences, thereby allowing for variations in pace.) The remaining twenty-six units are individually selected and may include courses in conventional classroom settings, individual or small group study, tutorials, peer teaching, work-study, and numerous other possibilities. A premium is placed on independence, choice and student responsibility for the direction and form of his college experiences.

Another distinguishing characteristic at New College is the optional Encounter Year. For one's Encounter, a student designs a personal project (1-8 units, subject to advisor's approval) which may take him away from the University campus. Travel, social work, an apprenticeship in one's future profession, library research, foreign study, Peace Corps type service, etc., are among the many options that have been explored as Encounter experiences.

It was in conjunction with the Encounter Year that we of Hofstra's Department of Elementary Education were called upon to devise a program for New College students interested in pursuing careers in teaching.

The program we developed is an interpretation, modification and application of the Teacher Innovator Program developed by Bruce Joyce and his associates at Teachers College, Columbia University. The basic scope and sequence of the entire program is portrayed in Diagram 1. However, we will presently address ourselves to the main body of the program, the Encounter Year.

CLINICAL FIELD EXPERIENCES: 32 weeks

A basic assumption underlying our program is that in teacher training we cannot educate within the college alone, for theory and practice must be closely related in time and place. Students must be in the field encountering the "real world" throughout their training. Reference to our Scope and Sequence chart (Diagram I) indicates how we translated this assumption into practice.

During the first 5 months of the Encounter Year the New College students (hereafter referred to as Interns) were placed two per classroom in elementary schools in a white, middle class, suburban setting. They spent 3½ days a week in these clinical placements, and were on campus one day a week for sessions in which the various components of the program were developed - Models of Teaching, Human Relations, etc.

For the second half of the Encounter Year, one of three possible clinical placements was mutually decided upon by each Intern and his Advisor, based on assessments from the first placement, and professional interest. Three Interns were placed in a small private suburban school with a large proportion of youngsters with social and/or emotional problems. Five others were placed in a public school in a low socio-economic area in New York City, and another group of five was placed in a public school in an integrated, low income area in a suburb of Long Island, New York. Interns spent three full days a week in their clinical placements, and two days on the Hofstra campus for participation and instruction in various components of the program.

The cooperating teachers involved in all placements were oriented to the New College Experimental Teacher Education Program - its rationale, objectives, curriculum and procedures - and whenever possible they were provided with copies of our protocol and training materials so that they could understand the needs of their Interns in terms of time, groups of children, assignments, etc.

Throughout the entire year, Interns were closely supervised in the field

by the professors who developed the program and who provided the on-campus instruction. Each of the three professors was directly responsible for four to five Interns (Supervisors changed at mid-year), whom she supervised weekly on an informal basis. Additionally, each supervisor was required to formally observe her Interns on eight occasions. Frequent evaluative meetings with public school personnel were scheduled as well.

At the midterm, and at the close of each semester, independent ratings of the Interns were obtained from their cooperating teachers, their supervisors, and the Interns themselves.

COMPONENTS OF THE PROGRAM

Models of Teaching

A Models of Teaching component was included in our program based on Joyce's contention that "the basic methodologies of education are theoretical specifications of learning environments."[2] Based on this premise, our program was "structured to explore a variety of learning environments, their theoretical bases, and to develop the clinical repertoire necessary to carry them out."[3] The assumption here is that children have different learning styles and characteristics, and a teacher needs a range of teaching strategies to deal with them effectively.

Furthermore, we conceptualized the role of teacher as one of innovator. This view of teacher derives from Joyce's conceptualization of teacher as innovator, institution builder and scholar.

It was expected that the New College program would provide Interns with the theoretical and clinical expertise to analyze, modify, and develop original teaching strategies and learning environments, using the basic models as a departure point. Therefore, the models component became the major vehicle for helping Interns assume the innovator role.

Earlier, we stated our belief that theory and practice must go hand in hand. We believe, as does Joyce, that the two must be "linked in the instructional systems in such a way that the students apply the model very close in time to the point where they begin to study it."[4] Therefore the thirty-two week clinical field experience was essential to successful implementation of the Models of Teaching component. (This field-centered experience also was relevant to other components of our program, as will emerge when they are considered in other parts of this paper.)

The models chosen for study represent 3 of the four basic families defined by Joyce and Weil.[5] Each family embodies a different orientation toward man and his universe. Social Interaction Sources provided the Group Investigation Model; Information Processing Sources provided the Bruner and Taba Models; Personal Sources provided Synectics and Role Playing. The reader is referred to Joyce and Weil's Models of Teaching for development of the models and detailed specifications.

In terms of protocol and training materials, programmed modules developed at Teachers College were used, as well as Joyce, Weil and Wald's Three Teaching Strategies for the Social Studies (Chicago: Science Research Associates, 1972). In addition to these, filmstrip-cassette exemplars were presented, readings and discussion sessions exploring the theory of the models were utilized, and peer and micro-teaching sessions were provided - some being video-taped. The significance of media in the instructional stages we believed was crucial. This was based on the notion that "Conceptual development can occur only if the learner already has an adequate body of perceptual inputs."[6] We believed

filmstrips, video-tape feedback and demonstration lessons would provide a substantial source of perceptual input, and consequently utilized these formats.

In order to assess Interns' levels of competence in actualizing the models, audio tape recordings of the Interns interacting with learners in the elementary school classroom were obtained.

These tapes, as well as live observations of Interns implementing the models, were discussed and evaluated in individual conferences with supervisors, and in seminars as well.

The Models Component and the Curriculum Content Component of our program were planned in a linking fashion. Concept Formation Models (Bruner and Taba) were taught in conjunction with classroom instruction in Social Studies, Math and Science. Group Investigation and Role Playing were taught in conjunction with classroom instruction in Social Studies. Synectics was taught in conjunction with Language Arts. We had intended to present the Behavior Modification model in conjunction with instruction in Science and Math. Unfortunately, time precluded presentation of that model.

We believed that each model chosen would have particularly wide and meaningful application to the discipline it was paired with, although students were encouraged to translate each model into many different subject areas, thereby demonstrating their grasp of the models' versatility, and their own ability to match models with suitable individuals and objectives. We believed this to be essential, if education was to assume the "pluralistic" structure Joyce advocates. It is his belief that "Children and adults alike should

have a 'cafeteria of alternatives' which stimulate their growth, and nurture both their unique potential and their capacity to make common cause in the rejuvenation of our troubled society."[7] The Models of Teaching Component we believed to be a suitable curriculum vehicle for developing a pluralistic structure for education.

Curriculum Content Component

The first content component introduced was Language Arts. This area was chosen as a point of departure because we view Language Arts as the structural foundation upon which the entire elementary school curriculum is built. Varied approaches to facilitating Creative Writing, teaching spelling, English grammar, the arts of speaking and listening were explored. Peer teaching, followed by independent and supervised micro-teaching took place.

Current research and varied practices in the teaching of Reading were investigated by our Interns (i.t.a., Words in Color, Alpha One, Language Experience Approach, S.R.A., Sullivan, Literature-based Individualized Reading, etc.). Mini-Course #18 developed by the Far West Laboratories for Educational Research and Development (1971) was utilized as the major instructional system for learning the skills of decoding.

The mini-course module utilized the following format: Interns viewed video-taped demonstration lessons, administered diagnostic tests to learners and prepared and implemented micro-teaching lessons in basic decoding skills in their clinical placements. Observations and evaluations of Interns' micro-teaching were conducted by supervisors and peers.

An independent system for learning Reading Comprehension skills was developed and introduced by our Reading and Language Arts specialist.

Instruction in Social Studies was provided by our Social Studies specialist. The content for this component drew upon the Social Science disciplines. The instructor's emphasis parallels the thinking of Popkewitz and Bruner who perceive the importance of having children "learn to bring their resources to bear on problems that matter to them, have experiences that allow them to deal with ambiguity, complexity, and the diversity of human existence, and act within a community that has its 'own sense of compassion and responsibility for its members'".[8] The methods of inquiry of the social sciences can provide the means for dealing with these issues of human existence. As Popkewitz indicates, children can focus "the different questions and modes of interpretations on the activities of their daily existence, for example by looking at the happenings of their class, peer group, or school. Or attention may be given to groups in their community, agencies, industries, unions, or associations."[9]

Interns were familiarized with the theory, and then investigated existing Social Studies materials. In keeping with the belief that theory and practice should go hand in hand, Interns were required to develop and teach a social studies mini-unit and depth unit embodying this theory.

Stemming from the concept of Teacher as Innovator, Interns had to formulate objectives, procedures and evaluation techniques appropriate to their units. Suitable materials had to be designed, constructed and selected to aid the Interns in implementing their units. Among the possibilities explored by the Interns were the development of Social Studies games, simulations, plays, data banks, filmstrips and movies.

Instruction in Mathematics and Science were done by our Math and Science Specialist. The theoretical implications of the works of Piaget, Bruner, Dienes, Gagné, and others were explored, and laboratory workshops were held providing for interaction with a variety of contemporary materials and programs in Mathematics and Science. Emphasis was placed on having the Intern personally experience activity, problem-solving approaches to learning. Original individual and group projects within the areas of Mathematics and Science were outgrowths of these workshops. These formed the bases of experiences that were actualized by the Interns in their clinical placements. As in the Social Studies area, students had to develop and execute depth units for their children in the schools - replete with rationale, objectives, procedures, original and commercial materials and evaluative techniques.

Furthermore, Interns identified through testing as being deficient in mastery of content in Mathematics were required to reach an acceptable level of proficiency as measured by post-testing. Toward this end, options included film series, auditing of content courses, programmed modules, and individual tutorial sessions.

During April of the clinical placement, the Creative and Performing Arts were explored. Professional resource people from a variety of settings were invited to develop twenty-five hours of workshop experiences in Dramatics, Music, Art and Movement.

Human Relations Component

Throughout the entire thirty-two week sequence, weekly sessions were to be held during which Interns would explore the dynamics of interpersonal behavior. It was hoped that through techniques of role playing, self-awareness training and discussions of personal feelings and concerns, the Interns would become more sensitive to themselves as they interacted with peers, with learners, and with the social system of the school.

The foci for these sessions were to emerge from the on-going concerns of the group.

The spirit of the Human Relations Component was that of Combs, Jersild, and Rogers.[10] We clearly subscribed to the construct of "self as instrument" in teaching. Hence, the search for self-understanding was fundamental to our planned program.

Over time, it became apparent that the presence of the three professors was inhibiting candid interaction among the Interns. Consequently, the format of the component was modified. The New College students chose to continue the Human Relations Component on their own, for three hours weekly.

As it happened however, these sessions soon took on a very different character, and by the Spring semester the students were scheduling films, resource people to speak on topics of special interest, etc. As a group they had apparently deviated from the often painful task of introspection.

However, advisement and psychological counseling did continue on an individual basis.

Study of Teaching Component

Instruction in a system of Verbal Interaction Analysis was deemed essential to developing the Interns' ability to identify and relate the variables involved in teaching. Furthermore, it was viewed as fundamental to a teacher trainee in that it provides one with a tool for constant and renewed scrutiny of one's own teaching throughout his career.

Therefore, during the first two weeks of the Encounter Year, students spent approximately twenty-seven classroom hours learning the Joyce System for Coding Student and Teacher Communications.[11]

Theoretical and operational understandings of Joyce's five categories were developed:

Sanctions

Information Processing (Bloom)

Opinions

Structuring

Maintenance

The format of instruction for this component included readings, discussion, observation and coding of transcripts, taped lessons and live lessons in the public schools.

At the conclusion of the instructional period each student was required to submit one audio tape recording of his interaction [illegible] in the school setting. Three three-minute segments ([illegible], closing) of each tape were then coded by the students using the Joyce System.

and thirteen key indices were computed. Subsequently, the students examined their statistics in the light of contemporary research regarding classroom climate, questioning, group dynamics, etc., each Intern reacting to his style as reflected by the indices. Students were then required to prepare a statement of desirable change to which they would address themselves in the coming months. Deriving from Joyce's belief that a teacher should be capable of implementing a variety of learning environments for different purposes and different children, our students were encouraged to "flex" their teaching styles and explore new teaching strategies.

As the Encounter Year terminated, students were again required to prepare audio tapes of their interaction with learners. Subsequently, they coded and computed the indices for this tape, and identified, explained and evaluated changes in their teaching styles from the first to the second tape.

Commentary

Recent legislation clearly indicates that the days of designing innovations in teacher education on the university level alone are over. Presently, public school and university personnel, members of local school boards and community representatives are collectively designing and implementing teacher training programs. The New College program was designed and executed by university personnel alone. All decision-making regarding the program's development, and the bulk of evaluation were done at the university level. The public schools acted as receivers -

their decision-making and advisory powers were small. Recommendations and suggestions could be made, but generally, Cooperating Teachers were not adequately trained in the various program components to take on a genuine role of supervision and training of our Interns. In reality, our Cooperating Teachers received an "extra pair of hands" in their classrooms in return for allowing our Interns to make flexible use of time and children to execute their various university assignments.

Naturally, had we the time and money for intensive training and on-going inservice work for the Cooperating Teachers, or had they been involved in our New College program development from the onset, our Interns would have benefited from more widespread supervisory contact.

Also associated with our students' field experience is the fact that a comprehensive study of the economic, social and political problems of the school communities was not provided for. Such factors have monumental influences on the children, on parent-teacher and teacher-pupil relationships, on curriculum, etc. At Hofstra University, in Hempstead, Long Island, we are fortunate enough to have a wide variety of educational settings within a reasonable distance of the campus. In addition to suburban settings, New York City is easily accessible, providing a totally different kind of school structure - a large bureaucracy involved in exploring decentralized community control.

We did, however, place our students in varied settings for contrast, but had we built into the program an extensive investigation by the Interns of the communities in which they were placed, no doubt a richer experience would have resulted.

Regarding the Models of Teaching Component, and the use of interaction analysis, a major criticism often raised is that when we break down teaching behavior in these ways we are being atomistic and mechanistic. A significant point raised is that in order to study teaching we MUST break it down. What is equally important however, suggests Lindsey, is that we remember to put it all back together afterwards - in other words, integrate the variables identified and examined. Attention was given to this integration in the New College program in seminars and in individual conferences with Interns.

In order to provide a balance between cognition and affect in the program, we included a Human Relations Component. It was within this component that we intended to explore the humanistic side of teaching. It was to our dismay that regularly scheduled group meetings of this nature waned by mid-year. However, some important revelations did occur early in the year, and individual counseling continued for some of our students throughout the program. One young man in crisis from the onset utilized our early seminars and individual counseling to explore his strained interactions with children in the classroom. Based upon these sessions which provoked self-inquiry and reflection, he withdrew from the program.

Another girl in the program suffering from a severe visual handicap and extremely low self-concept made progress in her search for self-understanding via individual counseling initiated through our New College program.

Related to the Models of Teaching Component is the question regarding just how many models a trainee can actually learn and actualize with students in elementary school classrooms. Stated in another way, we may ask if all students are capable of learning and utilizing any type of model. Hunt's research on matching models and learners provides us with some suggestions for program development, but little research is presently available regarding the matching of models and teachers. One small scale study conducted by Zaken [13] suggests that there may be models which some students will have great difficulty in actualizing successfully. Having received instruction in the theoretical bases of the Taba Model of Inductive Thinking, having gone through the instructional modules, having practiced the model five times with some videotape feedback, only four students in an N of 5 were rated successfully on this model. Extension of the study to larger samples and other models should be fruitful in determining if indeed there are models which a trainee cannot master, and just what the realistic limits on a teacher's repertoire might be.

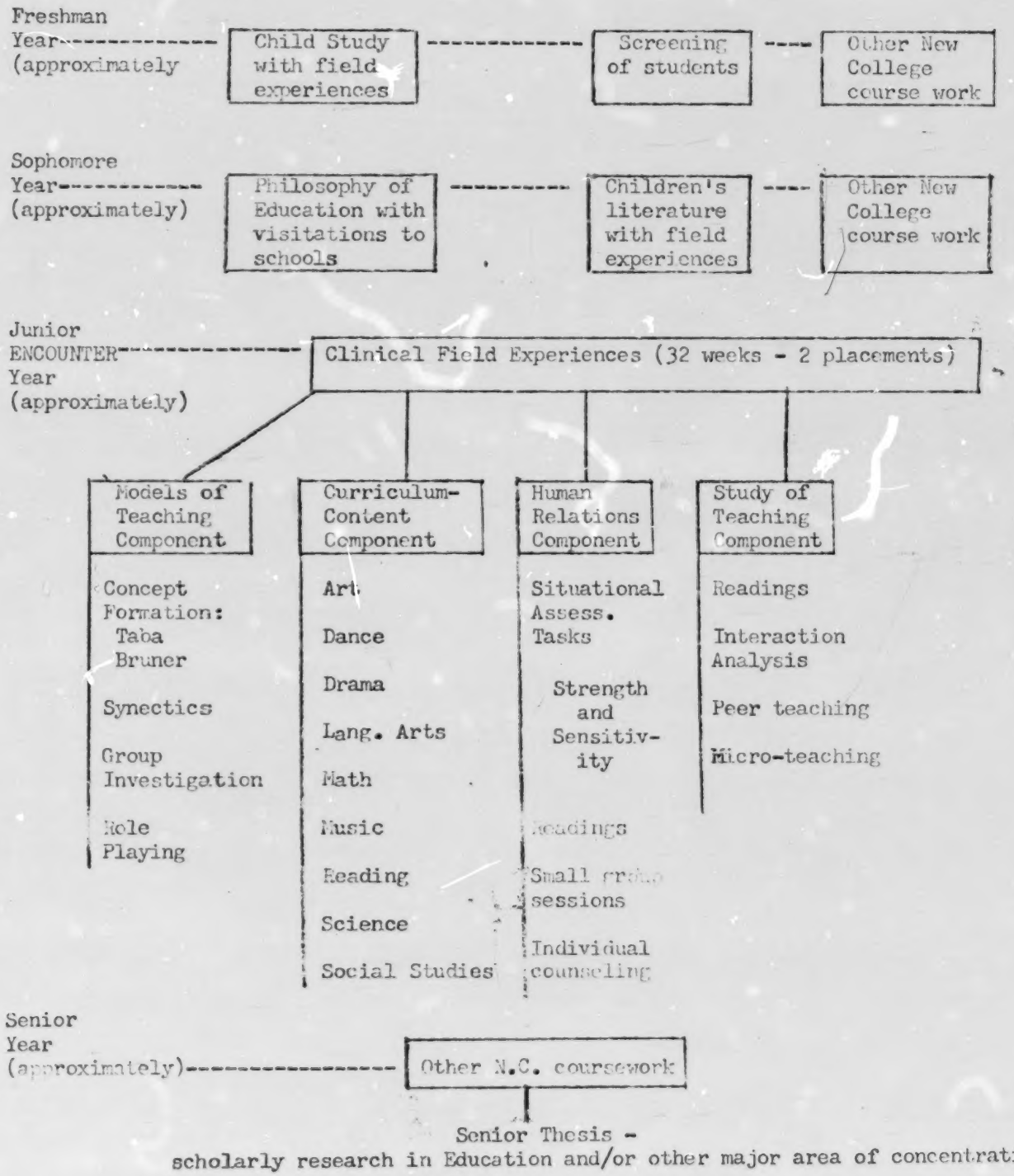
We know how important the theoretical base is if students are likely to be adaptive and flexible in their use of the models. Supervision of the Interns interacting with learners, and the units which they developed in the content areas did reflect appropriate use of the models and judicious application to a wide variety of settings.

At the conclusion of the Encounter Year we raised some questions regarding our program's provision for cultivation of the Creative and Per-

forming Arts. Although the resource people who developed twenty-five hours of workshops were very talented and provided for exciting, highly imaginative experiences, we found one intensive week of instruction in the arts to be inadequate. The Interns as well expressed a similar concern. We believe that the affective areas, as well as the cognitive areas, are developmental in nature and are worthy of ongoing consideration. We believe that time should be utilized so that the arts evolve within a training program in association with the cognitive areas, as we would hope to be the case within elementary school classrooms. In the revised New College program we plan to restructure this component.

DIAGRAM 1

SCOPE AND SEQUENCE OF NEW COLLEGE EXPERIMENTAL TEACHER TRAINING PROGRAM



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8. Thomas S. Popkewitz. "The Craft of Study, Structure and Schooling," Teachers College Record, Vol. 74, No. 2, December 1972, p.155.

9. Ibid., p.163.

10. Arthur Combs. The Professional Education of Teachers. Boston, Mass.: Allyn and Bacon, 1965.

11. Bruce Joyce, et al. op. cit., p.Appendix

12. Indices are ratios derived from the categories of the Joyce System for Coding Student and Teacher Communications, i.e. Index #1 - $\frac{\text{Teacher Talk}}{\text{Student Talk}}$

See "Instructional Module of Teaching Indices", Hempstead: New College, Hofstra University, 1972. (unpublished paper)

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